

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): M. MIYAMOTO ET AL

Serial No.: Rule 1.53(b) Continuation Application  
of Serial No. 09/637,879, filed August 15, 2000

Filed: Herewith

For: INFORMATION RECORDING MEDIUM AND INFORMATION  
RECORDING AND REPRODUCING APPARATUS USING THE  
SAME

Group of Parent: 1756

Examiner of Parent: M. Angebrannndt

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

September 24, 2001

Sir:

Preliminary to the examination of the above-identified  
application, please amend the application as follows:

IN THE SPECIFICATION

Please amend the specification as follows:

Delete the paragraph beginning on page 1, line 1, and  
insert the following:

--Cross-Reference to Related Applications:

This application is a Continuation application of  
application Serial No. 09/637,879, filed August 15, 2000,  
which is a Continuation application of application Serial No.  
08/978,043, filed November 25, 1997, now U.S. Patent No.  
6,132,932.--

T04260"99E09550

IN THE CLAIMS

Please cancel Claims 1 - 31.

Please add the following new Claims 32 - 43:

--32. An information recording medium comprising:

a substrate;

a recording layer for recording information in a form of a recording mark based on atomic arrangement change and/or electric state change caused by irradiation of an energy beam;

a reflective layer for reflecting the energy beam;

a first protective layer disposed between the substrate and the recording layer;

a second protective layer disposed between the recording layer and the reflective layer;

a third protective layer that has a composition different from the first protective layer disposed between the first protective layer and the recording layer;

a fourth protective layer that has a composition different from the second protective layer disposed between the recording layer and the second protective layer .

33. An information recording medium according to claim 32,

wherein the third protective layer is made of any of an oxide, a nitride and a fluoride.

34. An information recording medium according to claim 32.

wherein a thickness of the third protective layer is not

less than 2nm and not more than 20nm.

35. An information recording medium according to claim 32,  
wherein a thickness of the third protective layer is not  
less than 4nm and not more than 8nm.

36. An information recording medium according to claim 32,  
wherein the fourth protective layer is made of any of an  
oxide, a nitride and a fluoride.

37. An information recording medium according to claim 32,  
wherein a thickness of the fourth protective layer is not  
less than 2nm and not more than 20nm.

38. An information recording medium according to claim 32,  
wherein a thickness of the fourth protective layer is  
not less than 4nm and not more than 8nm.

39. An information recording medium according to claim 32,  
wherein the third protective layer prevents mutual  
diffusion of a material of the first protective layer and a  
material of the recording layer.

40. An information recording medium according to claim 32,  
wherein the fourth protective layer prevents mutual  
diffusion of a material of the second protective layer and a

material of the recording layer.

41. An information recording medium according to claim 32,  
wherein the reflective layer has a first reflective layer  
and a second reflective layer.

42. An information recording medium according to claim 32,  
wherein the first protective layer made of any of an  
oxide, a sulfide or a nitride, and a refractive index of the  
first protective layer is 1.5 or more.

43. An information recording medium according to claim 32,  
wherein the second protective layer made of any of an  
oxide, a sulfide or a nitride, and a refractive index of the  
first protective layer is 1.5 or more.--

REMARKS


Applicants have amended their specification in order to cross-reference the parent application, Application Serial No. 09/637,879, filed August 15, 2000, and the grandparent application, Application Serial No. 08/978,043, filed on November 25, 1997, now U.S. Patent No. 6,132,932.

In this preliminary Amendment, Claims 1 - 31 are canceled and replaced by new Claims 32 - 43. These Claims are supported by page 29, line 14 through page 32, line 14, page 26, lines 21 - 24, page 28, line 28 through page 29, line 2. Applicants respectfully request that this amendment be entered before the calculation of the filing fee.

Kindly charge any additional fees due, or credit overpayment of fees, to Deposit Account No. 01-2135 (File No. 500.35843CC2)

Respectfully submitted,

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RTW/RTW  
Enclosures

Marked up copy to show changes made

IN THE SPECIFICATION

Delete the paragraph on page 1, line 1 and replace it with the following:

Cross-Reference to Related Applications:

This application is a Continuation application of  
application Serial No. 09/637,879, filed August 15, 2000,  
which is a Continuation application of application Serial No.  
08/978,043, filed November 25, 1997, now U.S. Patent No.  
6,132,932.